

REMARKS

Claims 1-23 are presently pending. In the above-identified Office Action, Examiner rejected Claims 1-4, 7, 16, 17, 19, 20 and 23 under 35 U.S.C. 102(b) as being anticipated by Chen (243). Claim 9 was rejected under 35 U.S.C. 102(b) as being anticipated by Chen (243) in view of Chen (568). Claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (243) in view of Drecksel. Claims 5, 8, 10-15, and 18 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. Claims 21 and 22 were allowed. The indication of allowable subject matter is gratefully acknowledged.

By this Amendment Applicant has cured the objections to the present Application. For the reasons set forth below, the present Application is submitted as properly defining an invention patentable over the prior art. Reconsideration, allowance, and passage to issue are respectfully requested.

Claims 5, 8, 10, and 18 were amended to include key limitations of the associated base claims and any intervening claims, and consequently, should be allowable. Claims 14-15, which depend from Claim 10 should now be allowable. Claims 1-4, 6, 7, 9, 16, 17, 19, 20 and 23 were retained, amended, or cancelled as needed to overcome rejections under 35 U.S.C. 102(b) and 103(a).

In accordance with MPEP 707.07(j), Applicant requests that if Examiner finds any limitations in independent claims that can be moved into dependent claims while maintaining the allowability of the parent claims, that Examiner make these amendments or direct Applicant to do so. Furthermore, if Applicant's amendments are insufficient to bring the Application into condition for allowance, Applicant requests that Examiner make appropriate adjustments by Examiner's Amendment as required for passage to issue. However, Applicant requests that Examiner provide Applicant with any supporting arguments for Examiner's amendments, which may facilitate Applicant's preparation of a continuation application and accompany preliminary amendment.

Rejections Under 35 U.S.C. 102(b)

The invention is set forth in claims of varying scope. Claim 1, as previously amended, is illustrative. Claim 1 recites:

1. An exercise machine comprising:
first means for providing a user option to apply positive resistance to a first leg and a second leg during pushing or pulling motions or to apply positive resistance to said first leg during pushing motions while providing positive resistance to said second leg during pulling motions;
second means for providing a user option to apply positive resistance to a first arm and a second arm during pulling motions or to apply positive resistance to said first arm and said second arm during pushing motions; and
third means for facilitating abdominal crunches or back hyperextensions while exercising said legs and said arms via said first and second means. (*Emphasis added.*)

In rejecting Claim 1 under 35 U.S.C. 102(b), Examiner suggests that the foot pedal 31 of Chen (243) discloses said first means; the hand grip 41 discloses said second means; and the seat 21 and seatback 25 disclose said third means.

Regarding said first means, Chen (243) neither discloses a mechanism capable of applying positive resistance to a leg during pulling motions nor discloses a mechanism capable of providing a user option to apply resistance to a first leg during pushing motions while (simultaneously with) providing positive resistance to a second leg during pulling motions. The foot pedal 31 of Chen (243) only applies positive resistance to both the first leg and second leg during pushing motions when the legs move in similar directions and not during pulling motions. Even if the foot pedal 31 were modified to include foot straps, the foot pedal 31 would not show a mechanism for providing positive resistance to a leg during pulling motions. In particular, when Chen (243) is configured for either pull-type exercise (see Figs. 3 and 4 of Chen (243)) or push-type exercise, the legs must extend to push the foot pedal 31 from an upright position (see Figs. 3 and Fig. 5) to a downward position (see Figs. 4 and 6), thereby providing positive resistance during pushing motions only. Hence, Chen (243) would require unobvious modification

to disclose said first means. Therefore, Claim 1 is neither disclosed by nor obvious in view of Chen (243). Accordingly, associated dependent Claims 2-6 should also be unobvious in view of Chen (243).

Regarding Claim 2, Examiner suggests that the seatback 25 of Chen (243) is sufficient to disclose limitations in Claim 2. However, the seatback 25 of Chen (243) does not disclose means for securing (see shoulder straps 80 of Applicant's Fig. 1) an upper body to the seatback 25. Shoulder straps or other mechanisms for securing the upper body to the seatback 25 are required for applying positive resistance to the torso to facilitate abdominal exercise.

Regarding Claim 3, Examiner suggests that the actuator 27 of Chen (243) is sufficient to disclose the limitations recited in Claim 3. However, the actuator 27 is merely adapted to apply a resistance force to the foot post 31 of Chen (243) (see column 2, lines 58-61 of Chen (243)). Conventionally, for each exercise motion, actuators provide the same resistance to a particular portion of the exercise motion, and this resistance is not variable relative to other portions of the exercise motion. Accordingly, actuator 27 does not disclose a mechanism for varying resistance experienced by a user during select portions of a particular exercise motion relative to other portions of the exercise motion to facilitate targeting different muscle groups with different degrees of resistance as recited in Claim 3 as amended. For example, Applicant's invention could enable one to increase the resistance felt toward the end of an exercise motion while reducing resistance felt near the beginning of the motion. This would facilitate targeting those muscle groups that are recruited near the end of the overall motion (see page 14, lines 14-18; the paragraph beginning on page 15, line 26; and the paragraphs beginning on page 16, line 27 of the present Application). Hence, the limitations of Claim 3 are neither taught, disclosed, nor suggested by Chen (243) or any of the art of record taken either alone or in combination.

Regarding Claims 7 and 8, Examiner has not elaborated on the rejections under 35 U.S.C. 102(b) in view of Chen (243). However, Applicant notes that Chen (243) neither

discloses mechanisms capable of providing positive resistance to a torso nor discloses a sitting support that remains vertically stationary during operation of the exercise machine, as recited in Claim 8. By this Amendment, Applicant has cancelled Claim 7 and has incorporated limitations thereof into Claim 8. Applicant further notes that Yu, a reference cited but not applied to the current rejection, discloses a seatback 41 that purportedly may apply positive resistance to a torso of a user. However, neither Yu nor Chen (243) discloses a machine having a mechanism that provides positive resistance when a user extends a torso and a mechanism that provides positive resistance as a user moves the torso into a compressed or curled position, as indicated by Claim 8 as amended. Combining Chen (243) with Yu to teach the invention as claimed would require unobvious modifications to Chen (243) and/or Yu.

Regarding Claim 9, Examiner suggests that it would be obvious to combine features of Chen (568) with features of Chen (243) to disclose the invention as claimed. However, neither Chen (568) nor Chen (243) disclose a mechanism capable of providing positive resistance to a torso. In particular, the seatback 25 of Chen (243) moves backward when the exercise machine is actuated from an initial position (see Figs. 3 and 5 of Chen (243)) to an end position (see Figs. 4 and 6 of Chen (243)). This action will not provide positive resistance to the torso when the user moves the torso into a compressed or curled position as recited in the third means of Claim 9. Even if the seatback 25 of Chen (243) was modified to press on a user's back as the user returned the exercise machine to the initial position, this would represent negative resistance and not positive resistance. Hence, Chen (243) does not teach, disclose, or suggest the invention as claimed in Claim 9.

Regarding Claim 17, Examiner did not elaborate on the rejection under 35 U.S.C. 102(b) in view of Chen (243). However, Applicant notes that neither Chen (243) nor Chen (568) teach, disclose, or suggest a seatback linked to a frame with arm and foot levers so that actuation of the arm and foot levers causes actuation of the seatback and not

the seat. Note that the seatback 25 and seat 21 of Chen (243) both actuate simultaneously. Similar reasoning applies to the associated dependent Claim 18.

Similarly, regarding Claim 19, which was rejected under 35 U.S.C. 102(b) in view of Chen (243), note that Chen (243) does not disclose a seat and a seatback wherein the seatback may move independently of the seat. Clearly, the movement of the seatback 25 of Chen (243) is not independent of the movement of the seat 21 of Chen (243), since movement of either the seat 21 or the seatback 25 necessitates movement of the other.

Similar reasoning applies to the rejection of Claim 20. Note that Chen (243) does not disclose a seat that remains at a certain elevation during operation of the exercise machine as recited in Claim 20. The seat 21 of Chen (243) moves during operation, which complicates certain activities, such as reading while exercising. Hence, Chen (243) neither teaches, disclose, nor suggests the inventions recited in Claims 19 and 20.

Regarding Claim 23, the first means merely addresses the adjustability of the foot supports 74 of the present Application. The mechanical links 66, 68 and accompanying connecting options provide a user option to configure the supports as in Figs. 1-2 or as in Figs. 3-5. The foot support 31 of Chen (243) does not provide this configurability.

In rejection Claim 23, Examiner suggests that elements 31 and 41 of Chen (243) read upon the first means. However, note that the first means specifically refers to legs and not arms. Hence element 41 of Chen (243), which is adapted for exercising arms and not legs, does not teach or disclose the first means in combination with element 31. Examiner notes that Applicant does not recite that directions of motion be performed simultaneously. Applicant has added the term *simultaneously* to clarify. Hence, Claim 23 as amended is neither taught nor suggested by Chen (243).

Rejections Under 35 U.S.C. 103(a)

Regarding Claim 6, Examiner suggests that Drechsel discloses a plurality of bands 126 that may be employed to selectively adjust resistance levels and that it would be

obvious to combine the teachings of Drecksel with Chen (243) to disclose the invention as recited in Claim 6. However, as discussed above, Chen (243) does not disclose the invention as recited in the associated parent Claim 1. Furthermore, adjusting resistance levels via the bands 126 of Drecksel will adjust resistance felt throughout the same exercise motion and not at select portions of the same exercise motion as recited in Claim 6. Adjustments in relative resistance levels felt by arms or legs at different portions of the same motion facilitate target loading as recited in Claim 6. The bands 126 of Drecksel do not facilitate target loading, since the resistance profile of a particular motion is not affected by changing bands, rather, only the magnitude of resistance is affected. Claim 6 was amended to further clarify.

Summary

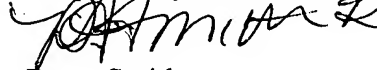
None of the references cited by the Examiner taken alone or in combination teaches, discloses, or suggests the invention as presently claimed. For example, none of the references shows use of a stationary seat; use of shoulder straps to facilitate abdominal crunches; or strategic use of tension bands to adjust the resistance profile of an exercise motion to facilitate target loading. The present Application is believed to be in proper form for allowance. Accordingly, allowance, and passage to issue are respectfully requested.

Inasmuch as this is a response After Final to present grounds for Allowance, Applicant requests that the Examiner provide prompt note of his position regarding the present Amendment to allow time for filing of a Continuation Application in the event that the Claims are not allowed.

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addressed to Commissioner for Patents P.O. Box 1450, Alexandria, VA 22313-1450, on
May 27, 2004.

Respeatfully submitted,

A handwritten signature in black ink, appearing to read "Barry Smith", with a stylized flourish at the end.

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